



Carmex
Precision Tools Ltd.

x-treme thread cutting™



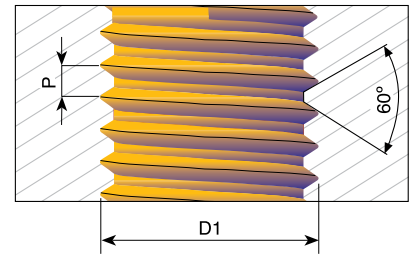
Mini Mill Thread & DMTH

New Products
for small threads



ISO

Tools for internal thread



For thread depth up to 2 x D1

| Pitch mm | D1 | Ordering Code | d | D | No. of Flutes | I | L |
|----------|----|-----------------------------|---|-----|---------------|------|----|
| 0.35 | M5 | MTS06045D14 0.35 ISO | 6 | 4.5 | 4 | 14.5 | 58 |

For thread depth up to 3 x D1

| Pitch mm | D1 | Ordering Code | d | D | No. of Flutes | I | L |
|----------|------|----------------------------|----|-------|---------------|------|-----|
| *0.45 | M2.2 | MTS03017C7 0.45 ISO | 3 | 1.65 | 3 | 7.0 | 39 |
| 1.5 | M10 | MTS08078C31 1.5 ISO | 8 | 7.80 | 3 | 31.5 | 64 |
| 1.75 | M12 | MTS1009C37 1.75 ISO | 10 | 9.00 | 3 | 37.8 | 73 |
| 2.0 | M16 | MTS12118D50 2.0 ISO | 12 | 11.80 | 4 | 50.0 | 105 |

* Specially designed for the production of dental implants

For thread depth up to 4 x D1

| Pitch mm | D1 | Ordering Code | d | D | No. of Flutes | I | L |
|----------|----|----------------------------|---|------|---------------|------|----|
| 0.5 | M3 | MTS03024C12 0.5 ISO | 3 | 2.40 | 3 | 12.5 | 39 |
| 0.7 | M4 | MTS06031C16 0.7 ISO | 6 | 3.10 | 3 | 16.7 | 58 |
| 0.8 | M5 | MTS0604C20 0.8 ISO | 6 | 4.00 | 3 | 20.8 | 58 |
| 1.0 | M6 | MTS06048C25 1.0 ISO | 6 | 4.80 | 3 | 25.0 | 58 |

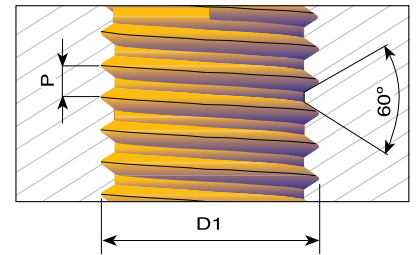
For thread depth up to 5 x D1

| Pitch mm | D1 | Ordering Code | d | D | No. of Flutes | I | L |
|----------|----|----------------------------|---|------|---------------|------|----|
| 0.5 | M3 | MTS03024C15 0.5 ISO | 3 | 2.40 | 3 | 15.5 | 39 |

Order example: MTS 03024C12 0.5 ISO MT7

UN

Tools for internal thread



For thread depth up to 3 x D1

| Pitch TPI | UNC | UNF | Ordering Code | d | D | No. of Flutes | I | L |
|--------------|-------|------|--------------------------|----|-------|------------------|------|-----|
| 40 | 4 | | MTS03021C8 40 UN | 3 | 2.10 | 3 | 8.0 | 58 |
| 24 | 10,12 | | MTS06035C15 24 UN | 6 | 3.50 | 3 | 15.5 | 58 |
| 20 | | 7/16 | MTS0808C34 20 UN | 8 | 8.00 | 3 | 34.6 | 64 |
| 18 | | 5/8 | MTS1212D49 18 UN | 12 | 12.00 | 4 | 49.0 | 105 |
| 16 | 3/8 | | MTS08067C30 16 UN | 8 | 6.70 | 3 | 30.2 | 64 |
| 14 | 7/16 | | MTS08077C35 14 UN | 8 | 7.70 | 3 | 35.2 | 64 |
| 13 | 1/2 | | MTS10092C40 13 UN | 10 | 9.20 | 3 | 40.1 | 73 |
| 12 | 9/16 | | MTS12105C45 12 UN | 12 | 10.50 | 3 | 45.0 | 105 |
| 11 | 5/8 | | MTS12114C50 11 UN | 12 | 11.40 | 3 | 50.0 | 105 |
| 10 | 3/4 | | MTS16144D59 10 UN | 16 | 14.40 | 4 | 59.7 | 105 |

* Specially designed for the production of dental implants

For thread depth up to 4 x D1

| Pitch TPI | UNC | UNF | Ordering Code | d | D | No. of Flutes | I | L |
|--------------|-----|-----|--------------------------|---|------|------------------|------|----|
| 56 | 2 | 3 | MTS03016C9 56 UN | 3 | 1.65 | 3 | 9.2 | 39 |
| 40 | 4 | | MTS03021C12 40 UN | 3 | 2.10 | 3 | 12.0 | 39 |
| 32 | 6 | | MTS03025C14 32 UN | 3 | 2.55 | 3 | 14.8 | 39 |

Order example: MTS 03016C9 56 UN MT7

For thread depth up to 5 x D1

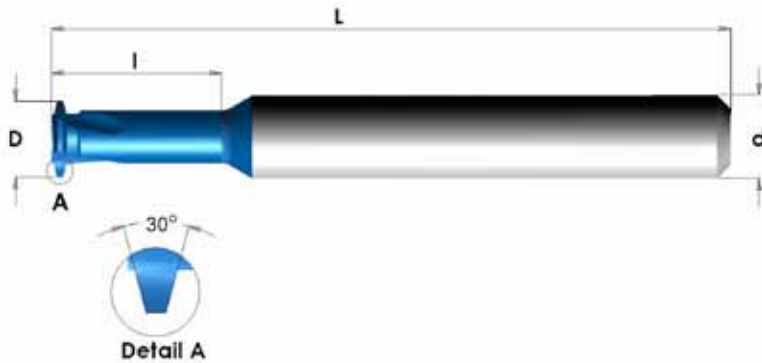
| Pitch TPI | UNC | UNF | Ordering Code | d | D | No. of Flutes | I | L |
|--------------|-----|-----|--------------------------|---|------|------------------|------|----|
| 80 | | 0 | MTS03012C8 80 UN | 3 | 1.15 | 3 | 8.0 | 39 |
| 56 | 2 | 3 | MTS03016C11 56 UN | 3 | 1.65 | 3 | 11.4 | 39 |

Carbide grade MT7:

Sub-Micron Grade with Titanium Aluminum Nitride multi-layer coating (ISO K10 - K20). This is a general purpose grade, which can be used with all materials; it should be run at medium to high cutting speeds.

Trapez-DIN 103

Tools for internal thread



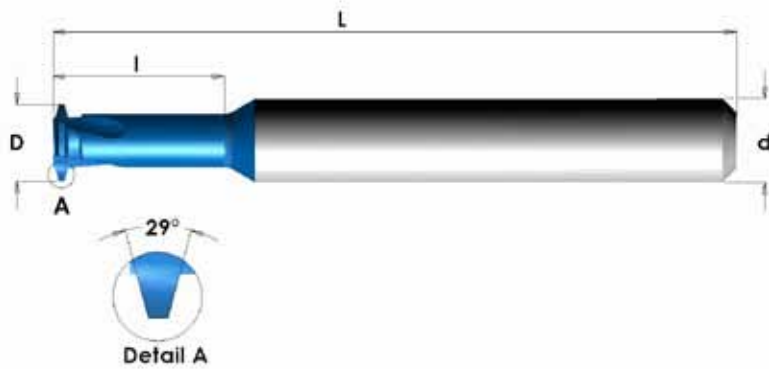
For thread depth up to 2 x D1

| Pitch mm | Thread size | Ordering Code | d | D | No. of Flutes | l | L |
|----------|----------------------------|---------------------------|----|------|---------------|------|-----|
| 1.5 | Tr8x1.5 Tr9x1.5 | MTI06055C13 1.5 TR | 6 | 5.5 | 3 | 13.5 | 58 |
| 2 | Tr10x2 Tr11x2 | MTI08066C21 2 TR | 8 | 6.6 | 3 | 21.0 | 64 |
| 2 | Tr12x2 Tr14x2 | MTI10086D25 2 TR | 10 | 8.6 | 4 | 25.0 | 73 |
| 3 | Tr12x3 | MTI0807C25 3 TR | 8 | 7.0 | 3 | 25.0 | 64 |
| 3 | Tr14x3 Tr22x3 | MTI10089D29 3 TR | 10 | 8.9 | 4 | 29.0 | 73 |
| 4 | Tr16x4 Tr18x4 Tr20x4 | MTI10092C33 4 TR | 10 | 9.2 | 3 | 33.0 | 73 |
| 5 | Tr22x5 Tr24x5 Tr26x5 | MTI14135D45 5 TR | 14 | 13.5 | 4 | 45.0 | 105 |

Order example: **MTI 08066C21 2TR MT8**

Acme

Tools for internal thread - Inch Shank



| Pitch TPI | Thread size | Ordering Code | d (in) | D | No. of Flutes | l | L |
|-----------|---------------------------|---------------------------|--------|------|---------------|------|-----|
| 16 | 1/4-16 | MTI0250C04 16 ACME | 1/4 | 4.3 | 3 | 9.7 | 64 |
| 14 | 5/16-14 | MTI0250C06 14 ACME | 1/4 | 5.2 | 3 | 15.2 | 64 |
| 12 | 3/8-12 7/16-12 | MTI0250C08 12 ACME | 1/4 | 6.1 | 3 | 19.1 | 64 |
| 10 | 1/2-10 | MTI0375D10 10 ACME | 3/8 | 8.3 | 4 | 25.4 | 76 |
| 8 | 5/8-8 | MTI0500D11 8 ACME | 1/2 | 10.4 | 4 | 27.9 | 89 |
| 6 | 3/4-6 7/8-6 | MTI0500D12 6 ACME | 1/2 | 12.0 | 4 | 30.5 | 89 |
| 5 | 1-5 1 1/8-5 1 1/4-5 | MTI0625E15 5 ACME | 5/8 | 15.9 | 5 | 38.1 | 102 |

Order example: MTI 0250C06 14 ACME MT8

Carbide grade MT8:

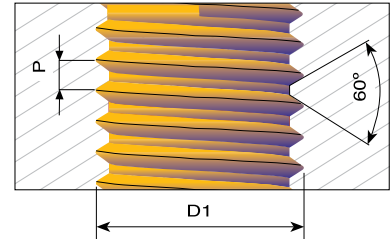
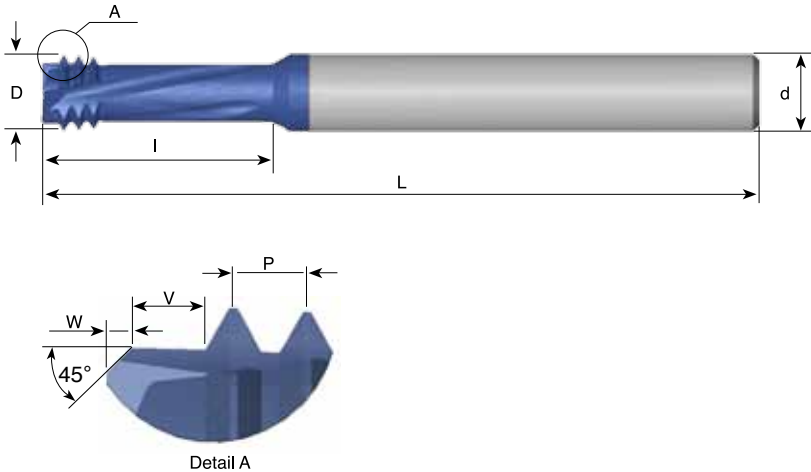
Sub Micron grade with advanced PVD triple coating (ISO K 10-K20).

Extremely high heat resistant and smooth cutting operation, for high performance, and normal machining conditions.

General purpose for all materials.

DMTH

The new DMTH tools expand the range of the existing DMT line providing the ability to cut steels, hardened materials, stainless steels and super alloys.



Left hand cutting
For CNC code use M04

ISO

Tools for Internal Thread

For thread depth up to 2 x D1

| Pitch mm | D1 | Ordering Code | d | D | No. of Flutes | I | W | V | L |
|----------|----------|--------------------------------|----|------|---------------|------|-----|------|----|
| 1.0 | M6 - M9 | DMTH 08047 C14 1.0 ISO | 8 | 4.7 | 3 | 14.4 | 0.4 | 1.0 | 64 |
| 1.25 | M8 - M12 | DMTH 08061 D19 1.25 ISO | 8 | 6.1 | 4 | 19.0 | 0.5 | 1.25 | 64 |
| 1.5 | M10- M15 | DMTH 08078 D23 1.5 ISO | 8 | 7.8 | 4 | 23.6 | 0.6 | 1.5 | 64 |
| 1.75 | M12 | DMTH 1009 D28 1.75 ISO | 10 | 9.0 | 4 | 28.1 | 0.6 | 1.75 | 73 |
| 2.0 | M16- M23 | DMTH 12118 D36 2.0 ISO | 12 | 11.8 | 4 | 36.6 | 0.6 | 2.0 | 84 |

UN

Tools for Internal Thread

For thread depth up to 2 x D1

| Pitch TPI | UN, UNEF, UNF UNC, UNS | Ordering Code | d | D | No. of Flutes | I | W | V | L |
|-----------|---------------------------|-----------------------------|----|------|---------------|------|-----|------|----|
| 40 | 4 | DMTH 06021 C7 40 UN | 6 | 2.1 | 3 | 7.0 | 0.1 | 0.6 | 58 |
| 32 | 6 | DMTH 06026 C8 32 UN | 6 | 2.6 | 3 | 8.7 | 0.1 | 0.8 | 58 |
| 28 | 1/4-3/8 | DMTH 0805 C14 28 UN | 8 | 5.0 | 3 | 14.9 | 0.4 | 0.9 | 64 |
| 24 | 5/16-1/2 | DMTH 08065 D18 24 UN | 8 | 6.5 | 4 | 18.5 | 0.5 | 1.05 | 64 |
| 20 | 1/4-3/8 | DMTH 08048 C15 20 UN | 8 | 4.8 | 3 | 15.6 | 0.4 | 1.25 | 64 |
| 18 | 5/16-7/16 | DMTH 0806 D19 18 UN | 8 | 6.0 | 4 | 19.2 | 0.5 | 1.4 | 64 |
| 16 | 3/8-1/2 | DMTH 08067 C22 16 UN | 8 | 6.7 | 3 | 22.8 | 0.5 | 1.6 | 64 |
| 13 | 1/2 | DMTH 10092 C30 13 UN | 10 | 9.2 | 3 | 30.0 | 0.6 | 2.0 | 73 |
| 11 | 5/8 | DMTH 12114 C37 11 UN | 12 | 11.4 | 3 | 37.0 | 0.6 | 2.3 | 84 |

Order example: **DMTH 1009 D28 1.75 ISO MT11**

Cutting Data - DMTH

Carbide grade MT11:

Ultra-fine Sub-Micron grade with advanced PVD triple coating.

| ISO | Materials | Cutting Speed m/min | Feed mm/tooth | | | | | | | | |
|----------|--|---------------------|---------------|------|------|------|------|------|------|------|------|
| | | | Ø 2 | Ø 3 | Ø 4 | Ø 5 | Ø 6 | Ø 8 | Ø 9 | Ø 10 | Ø 12 |
| P | Low and Medium Carbon Steels <0.55%C | 60-120 | 0.02 | 0.02 | 0.03 | 0.03 | 0.04 | 0.05 | 0.05 | 0.05 | 0.05 |
| | High Carbon Steels ≥0.55%C | 60-90 | 0.02 | 0.02 | 0.02 | 0.03 | 0.03 | 0.04 | 0.04 | 0.04 | 0.05 |
| | Alloy Steels, Treated Steels | 50-80 | 0.02 | 0.02 | 0.02 | 0.02 | 0.02 | 0.02 | 0.03 | 0.03 | 0.04 |
| M | Stainless Steels - Free Cutting | 70-100 | 0.02 | 0.02 | 0.02 | 0.02 | 0.02 | 0.02 | 0.03 | 0.03 | 0.03 |
| | Stainless Steels - Austenitic | 60-90 | 0.02 | 0.02 | 0.02 | 0.02 | 0.02 | 0.02 | 0.03 | 0.03 | 0.03 |
| | Cast Steels | 70-90 | 0.02 | 0.02 | 0.02 | 0.02 | 0.02 | 0.02 | 0.03 | 0.03 | 0.04 |
| K | Cast Iron | 40-80 | 0.03 | 0.03 | 0.03 | 0.03 | 0.04 | 0.05 | 0.05 | 0.05 | 0.05 |
| N | Aluminum ≤10%Si, Copper | 100-200 | 0.03 | 0.03 | 0.03 | 0.03 | 0.04 | 0.05 | 0.05 | 0.05 | 0.05 |
| | Aluminum >10% Si | 60-140 | 0.02 | 0.02 | 0.02 | 0.02 | 0.02 | 0.02 | 0.03 | 0.03 | 0.03 |
| | Synthetics, Duroplastics, Thermoplastics | 50-200 | 0.04 | 0.05 | 0.04 | 0.05 | 0.05 | 0.06 | 0.06 | 0.06 | 0.06 |
| S | Nickel Alloys, Titanium Alloys and High Temp. Alloys | 20-40 | 0.02 | 0.03 | 0.03 | 0.04 | 0.05 | 0.05 | 0.06 | 0.06 | 0.06 |
| H | Hardened Steels 45-50 HRc | 60-70 | 0.02 | 0.02 | 0.02 | 0.03 | 0.04 | 0.04 | 0.05 | 0.05 | 0.05 |
| | Hardened Steels 50-55 HRc | 50-60 | 0.01 | 0.01 | 0.01 | 0.02 | 0.03 | 0.03 | 0.04 | 0.04 | 0.04 |



Carmex
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x-treme thread cutting™



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